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MINISTRY OF COMMERCE

REPORT OF THE
INDIAN TARIFF BOARD
ON THE
FAIR RETENTION PRICES OF STEEL PRODUCED BY THE MYSORE IRON AND STEEL WORKS, BHADRAVATI

BOMBAY
1949

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REPORT ON THE FAIR RETENTION PRICES OF STEEL PRODUCED BY THE MYSORE IRON AND STEEL WORKS, BHADRAVATI.

Introduction.

1. This is the third and final Report arising out of the two references contained in (i) Government of India, Ministry of Commerce, Resolution No. 3-T(1)|48, dated 7th February, 1948, requesting the Tariff Board to determine the fair retention prices for billets and other categories of steel; and (ii) Government of India, Ministry of Commerce, letter No. D-T(1)|48, dated 15th October, 1948, requesting the Board to investigate the works cost of hot metal (iron for steel making) and also determine the fair ex-works price for pig iron (basic and foundry grades). The text of the first reference is given in Appendix I of our Report on the fair retention prices of steel produced by the Tata Iron and Steel Company and the Steel Corporation of Bengal; and the second will be found in Appendix I of our Report on the works cost of hot metal and fair ex-works prices of pig iron produced by the above-named two companies. Subsequently, the Board was also asked to investigate the cost of production of steel at the Mysore Works. In the present Report we propose to ascertain the fair retention prices of steel produced by the Mysore Iron and Steel Works, Bhadravati; and in so doing, also to arrive at the cost of pig iron (steel making and foundry grades) produced by the Works.

Iron and Steel Control vis-a-vis the Mysore Iron and Steel Works, Bhadravati.

2. In the first paragraph of our Report on the retention prices for the Tata Company and the Steel Corporation, we have given a brief account of the control over steel prices. We, therefore, deal here with the position of the Mysore Iron and Steel Works in relation to the Iron and Steel Control in India. The war contract base ex-works retention prices of steel were fixed for the two main producers, namely, the Tata Company and the Steel Corporation, from October 1939. This price arrangement did not cover the Mysore Iron and Steel Works. The production and distribution of iron and steel within the Mysore State was controlled by legislation passed by that State on the lines of the Iron and Steel Control (Production and Distribution) Order, 1941, of the Government of India. In consideration of the assistance received from the Government of India in meeting the requirements of the Mysore Works in respect of coal, coke and pig iron, the State Government agreed to place the full production of Mysore steel at the disposal of the Iron and Steel Controller, Government of India, for planning purposes. Although the Mysore Works was considered to be one of the three main producers of steel for purposes of planning of production and distribution, the Works did not, as stated above, come under the price arrangement applicable to the other two main producers, nor have there been any transactions between the State and the Iron and Steel Controller's Equalisation Fund. With the introduction of statutory control over steel prices for commercial purposes from 1st July 1944, the Mysore Works asked for the fixation of a suitable retention price for Mysore steel supplied outside the

State against orders planned by the Iron and Steel Controller, Government of India. It was contended that the price so fixed should be based on the actual cost of production of the Mysore Works, which was much higher than those of the other two main producers. Pending settlement of this question, however, the prices of Mysore steel sold within the Mysore State were increased and were much higher than the statutory prices fixed by the Central Government. Even when the statutory prices were reduced in India from 1st July, 1945, and again from 1st April, 1946, by Rs. 30 and Rs. 10 per ton respectively, the Mysore Government not only kept up the higher prices for supply within the State but increased them. We have been informed by the Iron and Steel Controller, Government of India, that in 1946, the Mysore Works agreed to place 60 per cent. of its output at his disposal, the balance to be distributed by the State's own Iron and Steel Controller. We were also informed that this offer of 60 per cent. of production for sale outside the State was not, however, fulfilled by the Mysore Works. Despatches against orders planned outside the State were suspended between April and December 1947, while the Works disposed of steel within the State at much higher prices than the statutory prices. When the statutory prices of steel were increased by Rs. 75 per ton in January, 1948, the Mysore Works also increased its prices; but, unlike the other main producers, it retained the surcharge of Rs. 50 per ton which was to be adjusted with the Equalisation Fund maintained by the Iron and Steel Controller, Government of India. The question of fixing a suitable retention price for the Mysore Works based on its own costs of production and of compensating the Works for the loss incurred by it in respect of supplies of steel made outside the State on orders planned by the Iron and Steel Controller, Government of India, at statutory prices, has been the subject of prolonged correspondence and discussion between the Government of Mysore and the Ministry of Industry and Supply, Government of India. In a communication dated 14th May, 1948, addressed to the Ministry of Industry and Supply, the Mysore Works claimed recoupment of a loss of Rs. 7.35 lakhs on 8,811 tons of steel sold outside the Mysore State during four half-year periods from January 1946 to December 1947. It was also stated in that communication that, at a meeting between the representatives of the Government of India and the State Government at Bangalore in January 1948, it was tentatively proposed that a subsidy of Rs. 100 per ton of steel might be given to the Mysore Works, subject to a detailed examination of the cost of the Mysore Works. Accordingly, the Ministry of Industry and Supply was to depute a Cost Accounts Officer as soon as the accounts were ready for inspection. Pending the cost examination, it was agreed that the Mysore Works would place its entire output at the disposal of the Government of India for planning and distribution and would sell its products at the statutory selling prices declared by the Iron and Steel Controller, Government of India. The following statement, furnished by the Mysore Works, shows the quantity of steel sections sold by the Mysore Works within and outside the State from 1940-41 to 1947-48:—

Period.	Outside the State.	Percentage to total.	Inside the State.	Percentage to total.	Total.
	Tons.		Tons.		Tons.
Year ending 30th June—					
1941	22,487	79·94	5,642	20·06	28,129
1942	17,070	86·12	2,751	13·88	19,821
1943	19,164	81·07	4,476	18·93	23,640
1944	13,116	61·92	8,067	38·08	21,183
1945	19,533	73·00	7,225	27·00	26,758
1946	7,177	26·78	19,626	73·22	26,803
1947	6,533	29·51	15,508	70·49	22,041
1948	3,104	16·37	15,858	83·63	18,962

It will be seen from the above table, that during the years 1946, 1947 and 1948, out of the total quantity of steel produced at the Mysore Works, only 26.78 per cent., 29.51 per cent. and 16.37 per cent. respectively has been sold outside the Mysore State, while during the years prior to 1946 supplies of Mysore steel outside the State varied between 61.92 per cent. and 86.12 per cent.

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Method of inquiry.

3. As the Board had already been asked to determine the fair retention prices of steel produced by the other two main units, namely, the Tata Iron and Steel Company and the Steel Corporation of Bengal, the Ministry of Industry and Supply intimated in June 1948, that the cost investigation of the Board should also cover the Mysore Iron and Steel Works whose claim for compensation referred to in paragraph 2 above, had been pending settlement. Accordingly, on 16th August, 1948, the Board issued to the Mysore Iron and Steel Works a questionnaire on the same lines as the one issued to the other two main producers (*vide* Appendix II of our first Report in connection with this inquiry). During the visit of the President of the Board to Bangalore on 6th September, 1948, opportunity was taken to discuss with Mr. P. R. Balakrishnan, Director and Vice-Chairman of the Mysore Works, various issues relating to the inquiry. Mr. Balakrishnan was also examined at Bombay on 27th September, 1948. The Board's Technical Adviser and Cost Accounts Officer visited the works on 17th January and

27th April this year and prepared estimates of current costs based on actuals incurred during two periods, namely, July 1947 to June 1948 and July 1948 to December 1948.

Special features of the Mysore Iron and Steel Works.

4. For a proper appreciation of the cost structure of the Mysore Iron and Steel Works, we describe below certain features which distinguish the Mysore Works from the other two main producers:—

(i) The main plant at the Mysore Works comprises a blast furnace with a capacity of 28,800 tons of pig iron per annum; an open hearth furnace with a capacity of 36,000 tons of steel ingots per annum; an electric furnace with a capacity of 4,000 tons of steel ingots per annum; and a rolling mill with a capacity of 28,800 tons per annum of merchant sections. Besides, there are ancillary units comprising a pipe foundry for the manufacture of cast iron pipes; a ferro-silicon plant (located in Mysore City); a rod and strip mill for the manufacture of wire rods and baling hoops, which was put up during the war and has started operation only recently; a cement plant; and a chemical plant for recovery of by-products and manufacture of calcium acetate. The rated capacity of the Mysore Works, which is 28,800 tons of finished steel per annum, is small as compared to nearly one million tons of the Tata Company and three lakhs tons of the Steel Corporation of Bengal.

(ii) Unlike the other two main units, the Mysore Works is not situated near the coalfields and its blast furnace was originally designed for charcoal smelting. Owing to an abundant supply of wood in the nearby forests, it was expected that the higher cost of using charcoal as fuel for the blast furnace would be offset by the recovery of by-products of wood distillation as well as by the better quality of pig iron produced through charcoal burning. Contrary to such expectation, however, supply of charcoal became insufficient and more costly on account of the extensive exploitation of the nearby forests during the war for the manufacture of calcium acetate required for defence purposes. From the beginning of 1945, therefore, coke is used to supplement charcoal in order to maintain production and to keep the cost of fuel at a reasonable level. But the furnace, having been specially designed for charcoal, does not yield the best results with coke or with a mixture of coke and charcoal.

(iii) Although iron ore, manganese ore, limestone and dolomite are obtained from Mysore Government mines and quarries on payment of royalties, the cost of transport of these materials from the mines to the Works is very high on account of the low tonnage hauled over the tramway lines owned by the Works. The cost of transport for hauling 1,00,000 tons of materials comes to nearly Rs. 6,00,000 per annum. This works out to three annas per ton-mile as compared to less than one anna per ton-mile in the case of both the Tata Company and the Indian Iron and Steel Company.

(iv) The freight on coke and coal, which are being purchased from outside the State, is also a serious handicap. Coke is at present received by the all-rail route, while coal comes by the sea-cum-rail route. The railway freight on coal is only Rs. 19.63 per ton if coal is received by the all-rail route. On the other hand, the sea-cum-rail freight on coal amounts to Rs. 64.87 per ton. The management of the Works stated that there are no definite prospects of coal being transported by the all-rail route to the Works in the near future.

(v) In addition to pig iron, steel scrap is also used at the open hearth and electric furnaces for the manufacture of steel ingots. About 21,000 tons of steel scrap per annum are required, out of which, only about 8,000 tons are available at the Works. The balance of about 13,000 tons is being purchased from Madras, Bombay, Secunderabad and from centres within the State.

(vi) The Mysore Works is owned and run directly by the State; it is not a public corporation. In the balance sheet of the Works are included all transactions relating to the steel manufacturing plant as well as the ancillary units mentioned above.

Thus, the features which distinguish the Mysore Works from the two other main producing units are:—

(a) the rated capacity of the Works is small;

(b) the cost of fuel in the manufacture of pig iron is very high, the plant having been designed for charcoal smelting;

(c) the cost of transport of raw materials to the Works is high;

(d) the Works is situated unfavourably from the point of view of supply of coal and coke; and

(e) it is owned and run by the Mysore Government as one of its Departments.

Method of costing.

5. On 15th October, 1948, the Ministry of Industry and Supply, Government of India, conveyed to the Mysore Works, Government's decision to include the Works in the cost investigation undertaken by the Board in connection with the determination of fair retention prices of steel produced by the main units. Accordingly, the Board's Technical Adviser and Cost Accounts Officer visited the Works from 17th to 24th January, 1949, and examined the final accounts for 1947-48. The accounts for the period from 1st July, 1948, to 31st December, 1948, were, however, not ready at that time and were expected to be ready in February or March, 1949. These accounts were, therefore, examined only on 27th April, 1949. The estimates of current costs are based on the actual costs of materials produced and supplied by the Works itself or on current prices paid by the Works, where raw materials are purchased from outside. The costs and prices of raw materials, forming the basis of our estimates, are given in Annexure I to this Report. The estimates of works costs thus arrived at relate to the following:—

(i) production of pig iron at the blast furnace;

(ii) production of steel ingot at the open hearth furnace;

(iii) production of steel ingot at the electric furnace; and

(iv) production of steel sections at the rolling mills.

Production: rated capacity, actual production, and estimate of production of the Mysore Works.

6. The following statement shows the name of the unit, the name of the product, the annual rated capacity, the actual production during the last three years and the half-year ended December 1948 as well as the estimates of annual production arrived at by us:—

Name of the unit.	Name of the product.	Annual rated capacity.	Actual production during				Estimated annual production.
			1945-46.	1946-47.	1947-48.	Half-year ending December, 1948	
		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Blast furnace ..	Pig iron	28,800	25,021	24,634	21,545	10,668	22,000
Open hearth furnace	Steel ingot	36,000	28,502	22,913	24,671	14,761	28,000
Electric furnace ..	Steel ingot	4,000	3,852	3,313	4,005	1,169	3,800
Rolling mill ..	Merchant sections consisting mainly of rods and bars.	28,800	24,713	23,390	22,475	12,250	26,250

Our estimate works out to 76.39 per cent of the rated capacity in the case of pig iron; 77.78 per cent. in the case of steel ingot produced at the open hearth furnace; 95 per cent. in the case of steel ingot produced at the electric furnace; and 91.14 per cent. in the case of finished steel. In our estimate of production of pig iron, we have included foundry grades as well as steel-making iron. If steel-making iron alone is taken into account, the estimated production would be 25,000 tons instead of 22,000 tons at the blast furnace. Out of the total of 22,000 tons of pig iron, about 13,000 tons are required for the pipe and general foundries and 3,000 tons for sale to railways and other consumers. The balance of 6,000 tons only is available for steel making and the additional requirements of pig iron of about 9,000 tons for steel making have to be purchased from the Indian Iron and Steel Company through the Iron and Steel Controller, Government of India. Our estimates are based on the current levels of production at the various units. We have made due allowance for there being only one blast furnace and its being shut down for about three months for relining and general repairs after every four years and for the higher proportion of coke being used in the furnace, which is mainly designed for the use of charcoal.

Works Cost.

7. (a) The following statement gives the production at various units and the break-up of the works costs into "net material costs", and "the above net material costs" :—

Name of unit.	Name of product.	Estimated production.	Net cost of materials used per ton of product.	Above net material cost per ton of product.	Total works cost per ton of product.	Remarks.
		Tons.	Rs.	Rs.	Rs.	
Blast furnace	Pig iron ..	22,000	99·61	35·88	135·49	Basic grade Rs. 129·98 per ton ; foundry grade—Rs. 137·98 per ton.
Open hearth furnace	Steel ingot. 28,000	31,800	114·50	94·62	209·12	Weighted average cost per ton of ingot is Rs. 209·21, including excise duty at Rs. 4 per ton.
Electric furnace	3,800		97·26	79·10	176·36	
Rolling Mill	Steel sections	26,250	239·12	51·00	290·12	Mainly rods and bars (untested category).

(b) The works costs submitted by the Works and those estimated by the Board are as under :—

	Estimate of works costs.	
	Submitted by the Works.	Estimated by the Board.
	Rs. per ton.	Rs. per ton.
Pig iron (average)	146·18	135·49
Steel ingot (open hearth furnace)	244·43	209·12
Steel ingot (electric furnace)	187·11	176·36
Steel sections (average)	333·38	290·12

(c) The works cost of pig iron (steel-making grade) at the Mysore Works comes to Rs. 129.98 per ton while the price of pig iron supplied by the Indian Iron and Steel Company and delivered at the Mysore Works comes to Rs. 111 for the basic grade and Rs. 135 per ton for the foundry grade No. IV. In our estimate, we have taken the price of basic grade pig iron only, as foundry grade No. IV is not suitable for steel making and also because it is difficult to make a forecast of the proportion of different grades that will be made available to the Works.

(d). The average cost of all sections of steel comes to Rs. 290.12 per ton inclusive of excise duty at the rate of Rs. 4 per ton of ingot. After making the necessary adjustment for 'Extras' earned during 1947-48 at Rs. 8 per ton, the average cost of the base price item No. 1 in the Iron and Steel Control Price Schedule, namely, 'rods and bars' (untested category), comes to Rs. 282.12.

(e) It has not been possible to determine separately the works cost for (i) rods and bars and (ii) structurals (angles), as separate accounts are not maintained. More than 90 per cent. of the production of steel sections consists of rods and bars, whose cost as mentioned in the preceding sub-paragraph comes to Rs. 282.12 per ton. For lack of adequate data, we have not been able to determine the cost of structurals (angles).

Higher works cost of the Mysore Works explained.

8. (a) In paragraph 4, we have mentioned some of the principal features of the Mysore Works which place it in an unfavourable position as compared with the other two main units, in respect of rated capacity, supply and transport of raw materials, etc. In the light of these factors, we explain below the higher cost of production of the Mysore Works.

(b) The following table gives the estimates of production and of the works costs of pig iron of the main producing units:—

Name of producer.	Estimate of production of pig iron.	Works cost of		
		Hot metal (iron for steel making).	Basic grade pig iron.	Foundry grade pig iron.
	Tons.	Rs. per ton.	Rs. per ton.	Rs. per ton.
Tata Iron & Steel Company ..	9,53,000	46·36	55·80	
Indian Iron & Steel Company ..	5,60,000	62·45	64·62	73·09 Grade I. 71·061 Grade II. 69·09 Grade III.
Mysore Iron & Steel Works ..	22,000	..	129·9	137·98

(c) The following table gives the estimates of production of all saleable steel of the main producing units and of the weighted average works costs of finished steel in respect of bars and rods:—

Name of producer.	Production (all saleable steel).	Weighted average works cost of rods and bars.
	Tons.	Rs. per ton.
Tata Iron & Steel Company	6,81,000	137·59
Steel Corporation of Bengal	2,23,170	174·44
Mysore Iron and Steel Works	26,250	282·12

(d) The marked differences in the figures of production and of works costs of pig iron and steel produced by the three main units as given above are attributable to the differences in the location, size, equipment, technique of manufacture, and the working conditions of the units. In contrast to the two larger steel companies, the Mysore Works started with a small plant more than twenty-five years ago, to produce pig iron on the scale of 20,000 tons per annum, of which about 7,000 tons was absorbed in the making of cast iron pipes. A small steel plant with an estimated capacity of about 15,000 tons of bars and small sections and 5,000 tons of hoops was added about 12 years ago, to utilise the iron produced. The scheme has not been remunerative. In order to minimise the dependence of the Works on charcoal and coke, it is proposed to adopt electric smelting of pig iron with power from the Jog hydro-electric station, and a beginning has already been made in this direction. Two electric furnaces, each producing about 110 tons of pig iron a day, have been ordered and are expected to be in operation by 1951. A third furnace is also proposed to be added subsequently. When all these furnaces come into operation, the total production of pig iron is expected to increase to one lakh tons per annum as compared with the present average output of 22,000 tons. It is also proposed to add a billet and light structural mill and to effect some improvements in the rolling mill. When these additions and improvements materialise, the production of finished steel is also expected to be increased to one lakh tons comprising 50,000 tons of bars and rods, 30,000 tons of light structurals, 10,000 tons of baling hoops, and 10,000 tons of wire rods. Until all these schemes fructify, it has to be recognised that the Mysore Works cannot be expected to reduce its costs to any appreciable extent. However, one way of effecting an immediate reduction in the works cost is by obtaining the entire requirements of coal by the all-rail route instead of the sea-cum-rail route as is being done at present. As has been stated in paragraph 4 above, an important factor which accounts for the higher cost of production is the freight on coal, which increases the total cost of coal by Rs. 45.24 per ton if coal is received by the sea-cum-rail route instead of the all-rail route. If coal can be transported throughout by rail to the

Works, the cost of finished steel can be reduced by about Rs. 25 per ton. We, therefore, recommend that concerted steps should be taken by the Ministries concerned to supply coal to the Mysore Works by the all-rail route.

Overheads.

9. Having determined the works cost, we now proceed to deal with the provision to be made in respect of overheads, which, for the purpose of the Mysore Works, include the following:—

(i) Depreciation;

(ii) Interest on working capital;

(iii) Return on fixed capital;

(iv) Administrative charges at Government headquarters;

(v) Selling expenses.

(i) *Depreciation.*—As in the case of the other two producers, namely, the Tata Company and the Steel Corporation of Bengal, we consider that provision for depreciation should be made on the gross value of the block. The gross value of the block as estimated by the Mysore Works amounts to Rs. 191.96 lakhs. On examining the composition of the block, we find that the block employed for the blast furnace plant and its auxiliaries amounts to Rs. 77.3 lakhs. As only about 27 per cent. of the production of the blast furnace is used for steel making, we propose to take into consideration for our estimate the proportionate value of the block relating to the blast furnace. On this basis, the value of the block for steel making would work out to about Rs. 92 lakhs, which we may round off to Rs. 95 lakhs. We have been informed that the Works has been making provision for depreciation at the rate of 6¼ per cent. which has been set apart in a separate fund for purposes of replacement. We consider a provision of 6¼ per cent. on a gross block of Rs. 95 lakhs as reasonable. This will work out to Rs. 593,750 on a production of 26,250 tons of finished steel, or Rs. 22.6 per ton.

(ii) *Interest on working capital.*—The total works cost of production of 26,250 tons of finished steel amounts to Rs. 76.15 lakhs. The management of the Mysore Works had originally asked for an allowance of four months' cost of production as working capital. Subsequently however, to the oral evidence tendered by its representative and the completion of the cost investigation, the management has asked for six months' cost of production as working capital. We have carefully examined this matter and consider that a sum of Rs. 25 lakhs, approximately equal to four months' cost of production, should be adequate for the purpose. We have allowed 4 per cent. interest on working capital in the case of the other two main producing units, namely, the Tata Company and the Steel Corporation. We, therefore, allow the same rate in this case also. The interest on the working capital of Rs. 25 lakhs comes to Rs. 1 lakh over a production of 26,250 tons of finished steel. This works out to Rs. 3.8 per ton.

(iii) ***Return on fixed capital.***—As the Mysore Works is run as a Government Department, the question of provision in respect of dividends does not arise. For the same reason, no provision for taxation and managing agency commission is also necessary. However, in order to provide fo interest at the rate which Government would normally pay if the amount is raised by public loan, as well as with a view to building up a reserve, we consider that a return of 5 per cent. on gross block would be adequate. In a memorandum submitted by the Works, the gross value of the block relating to its iron and steel manufacturing plant, excluding pipe foundry, rod and strip mill, ferro-silicon plant, cement plant and chemical plant, has been estimated at Rs. 191.96 lakhs. As already stated, we have taken the gross block of the steel making unit to be Rs. 95 lakhs. Five per cent. return on Rs. 95 lakhs will amount to Rs. 4.75 lakhs which on a production of 26,250 tons of finished steel, will work out to Rs. 18.09 per ton.

(iv) *Administrative charges at Government headquarters.*—The management of the Works has asked for Rs. 2.28 per ton of finished steel on account of administrative charges at Government headquarters. Although these charges relate to the entire works including the ancillary units, since the whole enterprise is run as a Department of the Government, we have agreed to provide Rs. 2.28 per ton of finished steel on this account.

(v) *Selling expenses.*—We consider that a provision of Rs. 2 per ton for selling expenses as reasonable. We have allowed the same rate in the case of the Tata Company and the Steel Corporation.

The provisions made by us in respect of the above overheads may now be summarised as under:—

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	Rate per ton of finished stee
	Rs.
(i) Depreciation	22.[illegible]
(ii) Interest on working capital	3.[illegible]
(iii) Return on fixed capital	18.09
(iv) Administrative charges at Government headquarters	2.28
(v) Selling expenses	2.00
Total overheads ..	48.77

It may be mentioned that the corresponding figures in respect of bars and rods come to Rs. 88 per ton in the case of Tata Company and Rs. 68 in the case of Steel Corporation.

10. (a) We give below the works cost, the overheads, and the fair retention price in respect of rods and bars manufactured by the Mysore Works:—

Fair retention price.

Board's estimate of fair retention price of rods and bars.

	Rs. per ton.
Works cost	282.12
Overheads	48.77
Fair retention price	330.89 or Rs. 331

(b) In arriving at the fair retention price of steel sections as shown above, we have taken the current price of pig iron supplied by the Indian Iron and Steel Company to the Mysore Works so far as the purchase of outside pig iron is concerned. [*Vide* paragraphs 6 & 7(c)]. If there is any revision in the price of pig iron as a result of the recommendations made by us in regard to the ex-works retention price of pig iron at the Indian Iron and Steel Company, necessary adjustments in the fair retention price of steel sections will have to be made in the case of the Mysore Works.

(c) It was brought to our notice by the Mysore Works that the proportion of pig iron produced by it to that of purchased pig iron in the manufacture of steel ingots at the open hearth furnace should be increased. In our estimate of the works cost of steel ingots, we have taken into account 5,899 tons of Mysore pig iron as against 9,300 tons of pig iron purchased from outside. The Mysore Works desired us to revise the figure of 5,899 tons to 10,000 tons and make a proportionate reduction in the quantity of pig iron purchased from outside the State. If the Mysore Works' suggestion is accepted, the cost of steel sections will be increased by Rs. 2.97 per ton, since its own pig iron cost is higher by Rs. 19 per ton than that of outside pig iron. We recommend that the Mysore Works should endeavour to reduce the use of its own pig iron at the open hearth furnace to a minimum so long as its cost is higher than the price of the purchased pig iron.

(d) The price of Mysore steel to the consumer within and outside the State is not the same at present. We recommend that a uniform price should be fixed for the Mysore steel both within and outside the State.

(e) As Government have decided that the fair retention prices of steel produced by the Tata Iron & Steel Company and the Steel Corporation of Bengal should remain in force until 30th April, 1951, we recommend that the ex-works retention prices determined by us in respect of the Mysore Works should also remain in force for that period.

Question of fixing a differential ex-works retention price for the Mysore Iron and Steel Works.

11. (a) We give below the fair ex-works retention prices arrived at by us in respect of rods and bars produced by the three main concerns:—

	Fair retention price as estimated by the Board in respect of rods and bars. *Rs. per ton.*
The Tata Iron & Steel Company	226
The Steel Corporation of Bengal	242
The Mysore Iron & Steel Works	331

(b) In paragraph 16 of our Report on the Fair Retention Prices of Steel produced by the Tata Company and the Steel Corporation, we have recommended the fixation of differential retention prices because the costs of the two units differ owing to the fact that they are unequal in size, equipment, financial resources, and technical experience. We consider that, for these reasons and also in view of the unfavourable location of the Mysore Works, its smaller rated capacity, and certain technical handicaps suffered by it which we have already pointed out, it is desirable to fix a separate ex-works retention price in respect of steel produced by it. While we recognise that the price of steel produced by the Mysore Works is much higher than that of the Tata Company or the Steel Corporation, we should like to point out that even this high price compares favourably with the price of imported steel. Moreover, when there is an overall shortage of steel, it is undoubtedly desirable that the production of indigenous steel should be encouraged even by paying a higher price for it, provided such a price is based on the cost of production. Such a course would involve no administrative difficulty, as there are only three well-organised units in the industry. It is obvious that a uniform retention price cannot be fixed on the basis of the costs of production at the Mysore Works, since it would unduly inflate the profits of the other two Companies and involve an unduly heavy burden on the consumer of steel. On the other hand, the fixation of a uniform retention price on the basis of the costs of the Tata Company or on the basis of the schedule of uniform prices recently announced by Government, would make it impossible for the Mysore Works to continue production. The only practicable and equitable method of price fixation in such circumstances is, therefore, to have a differential retention price for the Mysore Works on the basis recommended by us, while fixing a uniform sale or issue price for steel to consumers in all parts of India including the acceding States. Such a method of price fixation would be quite fair to each of the units concerned and at the same time entail the least possible burden on the consumers of steel.

Question of reimbursement in respect of losses incurred by the Mysore Iron and Steel Works.

12. We have been supplied with copies of the correspondence which passed between the Mysore Iron and Steel Works and the Government of India in the Ministry of Industry and Supply, regarding the claim of the Works for compensation of the loss incurred by it in respect of sales of steel outside the State on orders placed by the Iron and Steel Controller, Government of India. Apart from the fact that a decision on this question is partly dependent on the fixation by the

Government of India of a different ex-works retention price for the Mysore Works, this matter does not strictly come within the scope of our inquiry. We have, therefore, not examined the merits of this claim for compensation, although we discussed it at some length in the course of the oral evidence tendered by the Director and Vice-Chairman of the Mysore Works who has submitted certain figures of sales of steel effected by the Works within and outside the State during the last ten years in a letter, dated 17th October, 1948. This letter will be found in Annexure II to this report.

Summary of conclusions and recommendations.

13. Our conclusions and recommendations may be summarised as under:—

(i) The features which distinguish the Mysore Iron and Steel Works from the other main producing units are: (a) the rated capacity of the Works is small; (b) the cost of fuel in the manufacture of pig iron is very high; (c) the cost of transport of raw materials to the Works is high; (d) the Works is situated unfavourably from the point of view of supply of coal and coke; and (e) it is owned and run by the Mysore Government as one of its Departments. (Paragraph 4).

(ii) The rated capacity of the Mysore Works is 28,800 tons of pig iron, 40,000 tons of steel ingot, 28,800 tons of steel sections (mainly rods and bars) per annum. (Paragraph 6).

(iii) The estimated annual production of the Mysore Works is 22,000 tons of pig iron, 31,800 tons of steel ingot, and 26,250 tons of steel sections (mainly rods and bars). (Paragraph 6).

(iv) Out of a total of 22,000 tons of pig iron produced, only about 6,000 tons are used for steel making, the balance being used for the pipe and general foundries at the Works and for sale to other consumers; about 9,000 tons of steel making pig iron are purchased by the Works from the Indian Iron and Steel Company. (Paragraph 6).

(v) The works cost of basic grade pig iron is Rs. 129.98 per ton and that of foundry grade is Rs. 137.98 per ton. (Paragraph 7).

(vi) The average cost of all sections of steel comes to Rs. 290.12 per ton, inclusive of excise duty of Rs. 4 per ton of ingot; after adjustment of 'Extras' at Rs. 8 per ton, the average works cost of the base price item No. 1 in the Iron and Steel Control Price Schedule, namely, 'rods and bars' (untested category), comes to Rs. 282.12. The cost of structurals (angles) cannot be ascertained as separate accounts are not maintained. (Paragraph 7).

(vii) Until all the schemes of additions and improvements described in paragraph 8(d) fructify, the Mysore Works cannot be expected to reduce its costs to any appreciable extent. (Paragraph 8).

(viii) An immediate reduction in the works cost is possible by obtaining the entire requirements of coal by the all-rail route instead of the sea-cum-rail route as is being done at present; concerted steps should, therefore, be taken by the Ministries concerned to supply coal to the Mysore Works by the all-rail route. (Paragraph 8).

(ix) The overheads in the case of the Mysore Works comprise depreciation, interest on working capital, return on fixed capital, administrative charges at Government headquarters, and selling expenses; and a total allowance of Rs. 48.77 per ton of finished steel should be made in respect of these items. (Paragraph 9).

(x) The fair ex-works retention price in respect of rods and bars manufactured by the Mysore Works comes to Rs. 330.89 or Rs. 331 in round figure. As Government have decided that the fair retention prices of steel produced by the Tata Company and Steel Corporation should remain in force until 30th April, 1951, the ex-works retention prices in respect of the Mysore Works should also remain in force for that period. (Paragraph 10).

(xi) Although the fair retention price specified in paragraph 10 is much higher than that of the Tata Company or the steel Corporation, such price compares favourably with the price of imported steel. (Paragraph 11).

(xii) So long as there is a shortage of steel in the country, it is desirable to encourage the production of indigenous steel provided the price paid for it is based on the cost of production. (Paragraph 11).

(xiii) In view of the fact that the three main steel producing units are unequal in size, equipment, financial resources, technical experience, and natural advantages enjoyed by them, the only practicable and equitable method of price fixation is to have a differential retention price for steel produced by the Mysore Works as specified in Paragraph 10, while fixing a uniform sale or issue price for steel to consumers in all parts of India, including the acceding States. (Paragraph 11).

Acknowledgments.

14. Our thanks are due to Mr. C. R. Natesan of the Ministry of Industry and Supply, Government of India, Mr. M. K. Powvala, Iron and Steel Controller, Government of India, Mr. R. N. Kapur and Mr. O. N. Anand, Technical Adviser and Cost Accounts Officer, respectively, of the Board, and Mr. P. R. Balakrishnan, Director and Vice-Chairman, Mysore Iron and Steel Works, for their assistance at various stages of this inquiry.

G. L. MEHTA, *President.*

H. L. DEY, *Member.*

B. V. NARAYANASWAMY, *Member.*

R. DORAISWAMY,

Secretary.

BOMBAY,

27th June, 1949.

ANNEXURE I

(*Vide* paragraph 5).

THE MYSORE IRON AND STEEL WORKS, BHADRAVATI.

Table of costs and prices of raw materials forming the basis of the Board's estimates of works costs.

Name of raw material.	Rate per ton.	Remarks.
	Rs.	
1. Iron ore—Kemmangundi	10·49	Raised from Mysore Government mines.
2. Iron ore—Tanigebyle	7·98	
3. Manganese ore	15·91	
4. Limestone	7·32	
5. Dolomite	22·76	
6. Coke	59·13	Railway freight included.
7. Coal	87·25	Freight for sea-cum-rail route.
8. Charcoal	76·95	Own production.
9. Ferro-manganese	567·25	Purchased from Tata Iron and Steel Company.
10. Aluminium	1294·06	Purchased.
11. Flourspar	492·00	Purchased.
12. Ferro-silicon	764·06	Own production.
13. Pig iron	111·68	Purchased from Indian Iron and Steel Company-delivered f.o.r. Bhadravati.
14. Scrap	80·00	Weighted average rate of purchases made from different sources.

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ANNEXURE II

(*Vide* paragraph 12).

THE MYSORE IRON AND STEEL WORKS, BHADRAVATI.

No. VC.472|Enc.1.

BHADRAVATI,
17th October 1948.

THE PRESIDENT,
INDIAN TARIFF BOARD,
BOMBAY.

Dear Sir,

Re: *Supply of steel within and outside the State by the Mysore Iron and Steel Works, Bhadravati.*

As desired during the evidence taken on the 27th ultimo, I send herewith a statement showing the sales of steel sections within and outside the State from 1937-1938 to 1947-1948.

As has already been represented, every since 1939 September, the entire production of the Works has been placed at the disposal of the Government of India and all supplies have been made in accordance with their instructions. Owing to delay in settling the price question for supplies outside the State, when the Statutory price meant a loss of nearly Rs. 100 a ton, despatches against orders outside the State were suspended from about April 1947 to December 1947. Since the latter date, supplies outside the State have been resumed as compensation for losses has been promised.

Under the above circumstances, the figures for the years ending 30th June 1947 and 30th June 1948 shown in the statement, have been vitiated. Normally from two-thirds to three-fourths of the production of the Works is despatched against orders outside the State.

Yours faithfully,
P. R. BALAKRISHNAN,
Director and Vice-Chairman.

Encl. 1.

Statement showing sales of Steel Sections within and outside the State from 1937-38 *to* 1947-48.

Year ending 30th June.	Outside the State.	Inside the State.	Total.
	Tons.	Tons.	Tons.
1938	12,436	2,523	14,950
1939	18,440	5,130	23,570
1940	21,570	4,906	26,476
1941	22,487	5,642	28,129
1942	17,070	2,751	19,821
1943	19,164	4,476	23,640
1944	13,116	8,067	21,183
1945	19,533	7,225	26,758
1946	7,177	19,626	26,803
1947	6,533	15,508	22,041
1948	3,104	15,858	18,962

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